



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/838,483	04/19/2001	Louise C. Sengupta	283014-00018-1	8925

27512 7590 04/29/2005

WILLIAM J. TUCKER
8650 SOUTHWESTERN BLVD. #2825
DALLAS, TX 75206

EXAMINER

LEE, BENNY T

ART UNIT	PAPER NUMBER
----------	--------------

2817

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

577

09/838483.



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	CLASS	EXAMINER	ATTORNEY DOCKET NO.
---------------	-------------	-------	----------	---------------------

EXAMINER

EXAMINER	PAPER NUMBER
----------	--------------

This is a communication from the Commissioner of Patents and Trademarks to the applicant.

☐ This application has been examined ☒ Responsive to communication filed on 1 Feb 2003 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire Three (3) month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948. |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____ |

Part II SUMMARY OF ACTION

1. ☒ Claims 2, 6-9, 12-16 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. ☒ Claims 1, 3-5, 10, 11, 17, 18 have been cancelled.
3. ☒ Claims 2, 6; 7, 8; 12; 15; 16 are allowed.
4. ☒ Claims 8, 9; 13; 14 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

SN 838483

EXAMINER'S ACTION

Art Unit: 2817

Claims 8, 9, 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 8, note that “the tunable phase shifter” lacks strict antecedent basis in claim 7. Moreover, it is unclear how “a gap” (line 3) is related to the earlier recited “gap” of claim 1. For example, is the claim 3 “gap” intended to be the same “gap” of claim 1 or is it intended to be a different “gap”. Furthermore, in the last line note that it is unclear with respect which one of the recited “gaps” (e.g. cl. 1, cl. 3, etc) is intended by the recitation of “the gap”. Clarification is needed.

In claim 14, note that the claim dependency improperly refers to canceled claim “1”. Clarification is needed.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Vendik et al paper in view of Dimos et al (both of record) for reasons of record.

Applicant's arguments filed 1 February 2005 have been fully considered but they are not persuasive. Applicant has argued that neither Vendik et al, Dimos et al or any combination thereof does not disclose, teach or suggest the composite tunable dielectric layer including a substance from the indicated group. Moreover, applicant has argued that the large crystal materials or solid solution of BSTO as taught by either Vendik et al or Dimos et al do not properly characterizes a “composite”.

Art Unit: 2817

In response the examiner finds applicant's arguments unpersuasive. In particular it should be noted that a composite is recognized as an aggregation of various materials. Thus, BSTO is a recognized aggregation of barium (Ba), strontium (Sr), titanium (Ti) and oxygen (O) and thus is in and of itself properly characterized a "composite". Note that the "at least one substance" limitation includes as a possibility just BSTO (e.g. as taught in the prior art as the substance of the composite"). Accordingly, the aggregation of just (Ba, Sr, Ti and O) as the substance of the composite in the prior art is sufficient to meet the claimed invention, irrespective of the nature of the BSTO material therein.

Claim 8 is would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Although claim 14 is not rejected on prior art, an appropriate prior art rejection maybe re-instated upon the resolution of the improper claim dependency.

Claims 2, 6, 7, 12, 15, 16 are allowable over the prior art of record.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

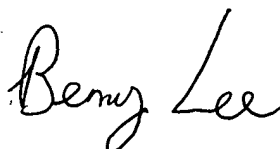
Art Unit: 2817

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number (571) 272-1764.

Lee/ds

04/19/05

A handwritten signature in cursive script that reads "Benny Lee".

BENNY T. LEE
PRIMARY EXAMINER
ART UNIT 2817